OFFICE OF THE DIRECTOR

Date: 30 June 1977

TO: Admiral Turner

FROM: [redacted] 30 JUN 1977

SUBJECT: Sternlight Letter re Oil/Energy

U

REMARKS:

You may be interested in Mr. Sternlight's response to your letter thanking him for attending the luncheon on energy.

He encloses a letter he sent the Wall Street Journal taking them to task for their criticism of the MIT-Workshop on Alternative Energy Strategies report and of CIA's report.

DDI is preparing comments and a response for your signature.

AtlanticRichfieldCompany

515 South Flower Street
Mailing Address Box 2679 T.A.
Los Angeles, California 90051
Telephone 213 486 1312

David Sternlight
Chief Economist

June 22, 1977

Admiral Stansfield Turner
Director
Central Intelligence Agency
Washington, D. C. 20505

Dear Admiral Turner:

Thank you for your kind letter subsequent to our useful and productive luncheon. I think such activities are essential to public confidence in and the long-term future of the Agency, and I am delighted at your wisdom and foresight in moving in such directions.

The Wall Street Journal recently criticized both the CIA's long-term energy outlook and the WAES energy outlook on economic grounds. I have written a response to their criticism which I enclose since it may be of interest to you.

Sincerely,

David Sternlight

D. Sternlight

DS:mem

Enclosure

Approved For Release 2004/03/15 : CIA-RDP80M00165A002400030002-4

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SUSPENSE 5 JUL 77
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Remarks:

To 5: Please prepare response for DCI signature.

[redacted]
D/Executive Secretary

Date

3637 (5-77)

AtlanticRichfieldCompany
515 South Flower Street
Mailing Address: Box 2679 T.A.
Los Angeles, California 90051
Telephone 213 486 1312

David Sternlight
Chief Economist

June 21, 1977

Mr. Thomas Bray
Editorial Board
Wall Street Journal
22 Cortlandt Street
New York, New York 10007

Dear Mr. Bray:

The Wall Street Journal, in an "aside" on May 18, characterizes the work of the M.I.T.-coordinated Workshop on Alternative Energy Strategies (WAES), as discovering the world is going to "run out" of oil even sooner than anyone thinks. WAES is taken to task for failing to understand that "supply equals demand" at an equilibrium price if markets are allowed to operate, and the Journal gives WAES, a two and one-half year study by participants from 15 nations, including some of the world's leading energy economists, an "F" in Economics I.

The Wall Street Journal's simplistic view of oil economics is further presented in "Review and Outlook" of May 27, in which the FEA and CIA are added to the list of those attacked, for a so-called "gap" approach to energy analysis which allegedly neglects the role of prices and markets, and allegedly leads to an "inventory clerk's" hustle. In fact, both the "aside" and the Wall Street Journal analyses are incorrect, and reflect a misunderstanding of both energy economics and these studies.

Energy Analysis and "Gaps"

Your writer appears not to have read beyond the foreword of the WAES report, which is, in fact, very explicit about the role of energy prices. Given the existence of the OPEC cartel, future energy prices are uncertain. So are the rate of future economic growth and expected government policies. Yet these three variables: price, growth and policy, are critical to understanding future energy supply-demand balance possibilities.

Policy makers' expectations are often incorrect in these areas; it is important to understand the consequences of inappropriate expectations and likely directions for remedies. Thus, most modern energy analysis considers "scenarios" of alternate combinations of these variables to test their consequences and search for feasible combinations. Most of a set of supply-demand curves is about gaps and surpluses; at only one point do they meet. While the Wall Street Journal concentrates on that one point, there is high learning value in such gaps and surpluses for policy makers and market participants. They must act to create supply enhancing and demand reducing activities, not assume them away with statements about the intersection of the curves. Such "notional" gaps also clarify the infeasibility of price controls over the medium to long term, by illustrating the enormous magnitude of the resulting rationing and non-market allocation that must somehow close the gap produced by such controls. Finally, the distribution of these gaps among fuels, and the timing of their onset, together with lead times for remedies to become effective, clarifies actions needed by both governmental and market decision makers and the time when such actions must begin.

The WAES report is quite clear on these matters. In the first of its ten major conclusions, which your writers apparently did not read (Page 3), we find

> "The supply of oil will fail to meet increasing demand before the Year 2000, most probably between 1985 and 1995, even if energy prices rise 50 percent above current levels in real terms (emphasis added). Additional constraints on oil production will hasten this shortage, thereby reducing the time available for action on alternatives."

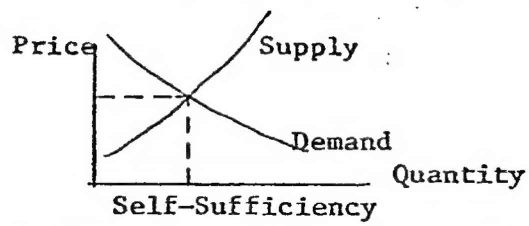
Perhaps one of the most significant paragraphs of the report (Page 8) reads

> "These prospective energy gaps or energy surpluses are the crux of our findings. In the real world, they cannot actually occur, since total fuel supplies and consumption, imports and exports, must always balance: no group of nations can import more oil than producer countries have available for export.

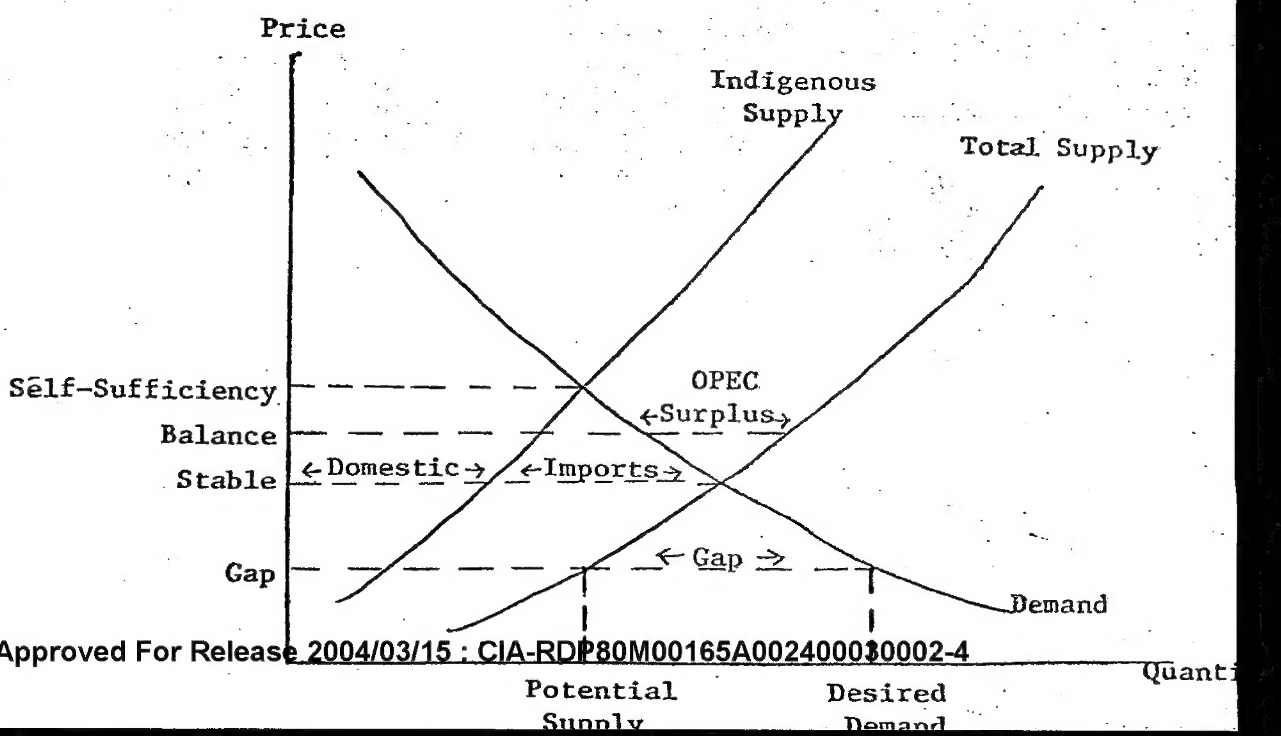
Mr. Thomas Bray
June 21, 1977
Page 3

Adjustments to avoid gaps would occur, perhaps through different prices or economic growth from those assumed in our scenarios or through anticipatory government policies. Hence the existence of gaps in our projections really illuminates the degree of change that must and will occur. Such changes must, however, occur in an ordered, controlled fashion if sharp and sudden adjustments that could amount to an energy crisis are to be avoided."

The simple economics of oil in the case of a cartel



For the United States, for example, domestic supply will intersect demand (at some moment of time) at a self-sufficiency price and quantity. An unknown but likely high price and low quantity of oil would result at such a domestic equilibrium. WAES studies at prices up to $17.25 (constant 1975 dollars) and to the Year 2000 show that there is no possibility of achieving such an equilibrium up to the Year 2000, at acceptable rates of economic growth. But oil imports are also available.



The supply-demand equilibrium with imports occurs at a lower price and higher quantity. OPEC functions as a price-setter, and it is doubtful that OPEC prices over time will lead to a stable equilibrium at the intersection point. Prices below this point will result in a shortfall between desired demand and available supply, producing a "notional gap." Prices above this point would produce an OPEC surplus which they must suppress if such higher prices are to be maintained.

One key to the OPEC price is the amount of supply or capacity that can be suppressed (or not built) by OPEC members acting either individually or collectively. Too high a price will lead to revenue shortfalls by some OPEC countries or to loss of control over price if an unacceptable burden of supply suppression falls on Saudi Arabia. Supply suppression below demand can produce a notional gap even at cartel-administered prices but OPEC has shown no evidence of ability to directly administer quantities thus far.

Price prediction is an uncertain and perilous task over the long term. Like many others (OECD, IEA, FEA), WAES economists decided to calculate the consequences of a number of alternate scenarios of energy price, economic growth, and government policy to see the outcome of some commonly expected alternative energy environments and shed some light on likely movements of these variables for cases with notional gaps - where desired demand for energy at case assumptions exceeded potential supply at these same assumptions.

<u>WAES Findings:</u>

From now to 1985, at $11.50 per barrel (constant 1975 U. S. dollars) oil price F.O.B. the Persian Gulf, and over a range of real non-Communist world economic growth from 3.4 percent to 5.2 percent combined with restrained government policy (market forces only) or vigorous policies, respectively, energy supply and demand are in balance. At real prices rising to $17.25 and vigorous policy, a supply surplus occurs. Such a surplus may be too large for OPEC to contain. At real prices falling to $7.66 and high growth (some people's "fantasy case"), a notional gap of 26.5 million barrels per day oil equivalent, or about 20 percent of demand occurs. Thus, the falling price/high growth future is infeasible, and the rising price case would not be necessary if the world ended in 1985.

But the world will not end in 1985; the real challenges come in the period from 1985 to 2000. Supply and demand are in balance, in WAES cases studied, only in the case of a rising energy price to $17.25 (real), low (2.8 percent) real economic growth, and vigorous government policies, and even then, only barely until the end of this century, if all goes well.

In all other cases studied, including high (5.2 percent) real economic growth and $17.25 energy price or low growth and constant real prices, significant gaps occur between desired demand and potential supply at case assumptions. These "notional gaps" begin between 1982 and 1995, depending on the case and assumptions about OPEC production ceilings. With lead times on the order of ten years for most "gap-filling" major supply-enhancing or demand-reducing actions (stimulated by price and policy changes), it is clear that action is needed now to avoid seriously disruptive shortages after 1985. If we delay until then, the situation can only be remedied by sharp price changes, rationing, and lost growth and jobs. During the transition era of 1985-2000, the world must rely on increased use of coal and nuclear together with conservation, until renewables are brought onstream in major amounts. We can use that time wisely only if it is available; only if we adopt major new energy policies now.

Very truly yours,

David Sternlight

D. Sternlight

DS:mem

cc: T. F. Bradshaw
O. M. Nichols
C. L. Wilson

bcc: W. A. Coyne
A. J. Finizza
E. D. Griffith

The Director
Central Intelligence Agency
Washington, D.C. 20505

13 JUN 1977

Dear David,

I want to personally thank you for fitting my luncheon into your obviously very full schedule. My economists tell me that your exposition of the WAES study at the morning analytical discussion was excellent, as were your comments on our study. A number of the issues that you raised are being researched, and [redacted] will be in touch on some specific points. I also appreciate your response to my questions about the kinds of energy issues on which we should focus and the types of information we should collect.

ST

Again, my sincere appreciation for your time.

Yours,

/s/ Stansfield Turner
STANSFIELD TURNER

Dr. David Sternlight
Atlantic Richfield Corporation
515 South Flower Street
Los Angeles, California 90071

 2229-77

STAT

31 May 1977

Executive Registry
77-1517

MEMORANDUM FOR: Director of Central Intelligence

FROM :

Deputy Director of Economic Research

SUBJECT : Your 8 June 1977 Luncheon on World Energy Estimates

1. Action Requested: For your approval of the proposed guest list on the Intelligence side.

2. Background: The guest list for your 8 June luncheon to discuss energy estimates has been confirmed. In your name, I have invited five of the nation's most prominent energy experts. Two are specialists in Soviet affairs and three have been associated with recently published world energy estimates. The guest list is as follows:

-- Walter Levy, perhaps the best known individual oil authority in the country;

-- Robert Campbell from the University of Indiana, the leading academic on Soviet oil;

-- Marshall Goldman, Associate Director, Russian Research Center, Harvard;

-- Dr. John Patrick Henry, Director of the Energy Center at Stanford Research Institute; and

-- Dr. David Sternlight, Chief Economist for Atlantic Richfield Oil Company and a member of the MIT Workshop on Alternate Energy Supply (WAES).

I had invited Thornton Bradshaw, President of ARCO who unfortunately will be in London that day; but asked if he could send Sternlight in his place. Brief bios on the above are attached (A).

EXECUTIVE REGISTRY FILE E-17

3. I have asked the participants to arrive mid-morning on 8 June so that we might brief them in some detail on our methodology and findings prior to your luncheon. I also asked them if they could give us a part of the afternoon to discuss the issues that were raised at the luncheon.

4. I propose the following invitees from the Intelligence side:

-- Robert R. Bowie
-- Sayre Stevens
-- [redacted]
-- [redacted] (senior OER energy analyst)
-- [redacted] (Soviet energy specialist)
-- [redacted]

5. We have undertaken two other commitments in the energy area which I would like to call to your attention. I have agreed to meet on 29 June with the East/West Trade Advisory Committee sponsored by the Department of Commerce. The Advisory Committee is made up of prominent U.S. businessmen and government officials. I am attaching pertinent memorandum for your background (B).

Good Great

6. We also will hold an Economic Intelligence Committee seminar on the long-run demand for oil on 15 June. This meeting will be held at the Department of State. I am attaching a list of participants to this memorandum for your information (C).

Good

[redacted]

APPROVED: ______________________
Director of Central Intelligence

DISAPPROVED: ______________________
Director of Central Ingelligence

DATE: 2 JUN 1977

Attachments:
as stated

SUBJECT: DCI 8 June 1977 Luncheon on World Energy Estimates

AT

CONCU[redacted]

Deputy Director for Intelligence

1 JUN 1977

Date

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AT

OD/OER[redacted] (31 May '77)

Next 2 Page(s) In Document Exempt

Executive Registry
77-4480/A

Central Intelligence Agency

Washington, D.C. 20505

28 JUN 1977

Mr. R. H. Loughran

AT

[redacted]

Dear Mr. Loughran:

Thank you for bringing Mr. Loebl's letter to my attention. His letter reflects a proper concern over the extent and nature of the Soviet threat to Europe and this country.

Our estimates of Soviet defense spending show that the Soviet defense effort has been growing at a rather steady 4-5 percent annually thus far in the 1970s. Last year's upward revision in our estimate of the overall level of expenditures resulted not from a discovery of additional Soviet forces, but from a better understanding of the Soviet pricing system. It showed that the Soviets are less efficient than previously believed and thus, it costs them much more than we thought to produce the same quantity of military goods. Our estimates of the size of Soviet forces in terms of numbers and quality of aircraft, ships, etc. have not changed significantly.

We believe that within the limits of what is measurable, our present estimates in this area are as good as the evidence permits. We are constantly striving to improve these estimates; as new information becomes available, we shall continue to revise them as we have in the past.

Yours sincerely,

/s/ Stansfield Turner

STANSFIELD TURNER

EXECUTIVE REGISTRY FILE

SUBJECT: Response to the R.H. Loughran Letter

CONCUR:

AT [redacted]

Deputy Director for Intelligence

14 JUN 1977

Date

Distribution:

Original - R.H. Loughran
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OSR/[redacted](14 June 1977)

AT

May 16, 1977

Admiral Stansfield Turner
The Pentagon
Washington DC

Dear Admiral Turner;

The enclosed letter of Eugen Loebl speaks for itself. The allegations, and source, are sufficiently important to warrant verification, or disproof. If true, they cry out for a Winston Churchill and a Sir John Stephenson. I hope, for our sake, that you prove to be the latter, if the allegations prove to be true. If I hear from you I will know that your mail is not being illegally intercepted and opened(!)

Sincerely

R. H. Loughran

R. H. Loughran
Assoc. Fellow AIAA

Readers Report

Soviet military spending

In reading "The CIA's goof in assessing the Soviets" (Economics, Feb. 28), I was amazed at the lack of knowledge in the U. S. about the basics of Soviet economy.

In 1968, as director of the Czechoslovak State Bank, I made a study of effective outlays for military purposes. Since the method of national accounting used was actually introduced in Czechoslovakia by Soviet experts, it can be assumed that what we found applies with equal force to the Soviet system.

Our study concluded that what was actually allocated to the military was more than three times the formal military budget. We found, for instance, that the costs of transportation, oil, gasoline, food, etc., were far cheaper for the military than for civilian consumers or producers.

Every available source indicates that the arms race since 1968 has increased. It is in this context that we must evaluate the more than $40 billion in credits which the Soviet Union and Warsaw bloc have gotten from the West. It seems paradoxical that on the one hand, the West is trying to stop the arms race and on the other, it is to such a remarkable degree financing the same race.

In my opinion, the Soviets have no intention of military occupation of Western Europe; they expect that the superiority of the Soviet conventional arms will produce a kind of "Finlandization" in Europe. It is just such a victory which is the goal of the long-term strategy of the Soviet Union and the Soviet understanding of détente. That the true character of Soviet foreign policy is not understood is bad enough. That the West is financing it with more than three times what the U. S. gave in the Marshall Plan is nothing less than tragic.

Eugen Loebl

New York

Some of the futile efforts at comparing the two levels of expenditure seem pointless if I can believe some of the evaluations of Soviet hardware that I have seen published.

The intelligence community largely passed off the capability of the MIG-25 which lan[redacted] in Japan as being second-rate compared to our modern fighters, totally disregarding the fact that it is a 10-year-old weapon system designed expressly to shoot down our B-70, which was subsequently scrapped.

William R. Jolly

Edmond, Okla.

The Concorde: A loser

Your interview with Prime Minister Barre of France, in "A tough policy to stabilize France" (Foreign, Mar. 7), deserves comment.

The Concorde will lose money even if it does come to New York. Britain and France will have to subsidize it unless they can unload the burden by getting all transatlantic passengers to pay higher fares. Our refusal to help Britain and France out in this matter is hardly a question of "unfair competition." They made a bad blunder in building the Concorde rather than, say, the Channel tunnel. They cannot expect us to pay for their wrong spending priorities any more than we could charge them for some of our overpriced and functionally useless weaponry.

John E. Ullmann

Hempstead, N. Y.

The $486 million repaid

Regarding "The new austerity starts to work" (International business, Mar. 14), the author writes that "Italy will ask for a $500 million credit to pay back a $486 million debt to Britain. Last December London asked for the money back—it was part of a $1.9 billion European Economic Community loan to Italy—to ease the pinch on its own purse." I wish to point out that as of Dec. 9, 1976, Italy had repaid the $486 million credit extended by the United Kingdom in March, 1974, as part of a short-term EEC facility.

Luigi Marini

U. S. Representative
Ufficio Italiano Dei Cambi
New York

For comparison's sake

Either my math or your skill seems to be off track in "The billion-dollar farm co-ops nobody knows" (Industries, Feb. 7).

Ralston Purina's tax rate was quoted at 38.5%. While the executives and

BUSINESS WEEK March 28, 1977 • 2478

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Remarks:

2-4: The attached response takes note of Mr. Loughran's legitimate concern with the US-Soviet balance of power, presents the implications of the revision in our estimates of Soviet defense spending, and an assurance that we will continue to work to improve our estimates.

SAYRE STEVENS
DDI

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(3). I would like to urge you to use your legal Presidential authority to release the total budget figures for Intelligence Operations. We've had enough of secrecy and know that it has facilitated abusive use of power. We have learned that public funds have been used to violate our constitutional rights. Let this evil not be repeated!

These three issues are important and worthy of your attention.

Sincerely,

(Mrs) Gertrude Lewis

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SUSPENSE 13 JUL
Date

Remarks: The attached letter addressed to the President was referred to this Agency for direct reply. Please develop a suitable reply addressing paragraph 3 for DCI signature.

D/Executive Secretary

5 Jul 79
Date

3637 (5-77)